ENGINEERING EXCELLENCE

The ILF Group
Whether it is the extraction of natural raw materials under difficult conditions, the development of innovative industrial plants or the supply of water and energy to a metropolis - it is mostly the art of engineering which facilitates and safeguards the sustainable development of mankind and improves the quality of life.

ILF Consulting Engineers confront these challenges worldwide and develop sustainable and economical solutions today to address the needs of tomorrow.

The success of our demanding international projects stems from our qualified and highly motivated staff, long-standing professional experience, scientific competence and enormous innovative strength, in combination with the classic values of reliability, functionality, safety and punctuality.

Today, the ILF companies rank among the world’s leading engineering firms in the areas of their core expertise.

ILF has main offices in Innsbruck and Munich, and more than thirty subsidiary offices worldwide. A permanent staff of over 1,800 are employed to develop and execute project solutions for international customers. All ILF companies are certified to ISO 9001.

The company was founded by Pius Lässer in Innsbruck in 1967. In 1969 he was joined by Adolf Feizlmayr and the company expanded into ‘Ingenieurgemeinschaft Lässer-Feizlmayr’ (ILF). Today, the company is doing business under the name of ILF Consulting Engineers.

In its more than 40-year long corporate development ILF has continued to extend the scope of its activities and expertise to embrace new and diversified engineering disciplines.

ILF’s presence in the market is dictated by its strong position. ILF is a completely independent company with no affiliation to construction firms, suppliers or financial institutions. As a result, ILF is able to exclusively serve its clients’ interests.

Convincing services are based on competence. Following careful analysis, ILF’s engineers develop the best possible solutions for individual projects that are tailored to the client’s specific needs. Priority is given to innovation, cost effectiveness, sustainability as well as environmental compatibility. Reliability in terms of quality, cost and punctuality is essential for ILF.

ILF’s particular strength stems from its ability to develop and execute complex engineering projects that require overall design and project management services and that utilise the international, interdisciplinary know-how the company has acquired from many years of design and construction management.
**Staff**

ILF’s strength is based on its highly motivated staff who have gained many years of experience working on complex projects at home and abroad.

A further asset is the interdisciplinary composition of ILF’s project teams. Not only does ILF attach importance to a broad professional background, but it also encourages employees to take part in continuous further training in specialised fields and to participate in courses that promote personal advancement.

ILF’s teams comprise experts in various technical disciplines including civil, mechanical and electrical engineering as well as environmental sciences and economics. An advantage for ILF’s customers is the close contact ILF maintains with leading international experts. Whenever required, these experts provide support for specialist tasks.

**Clients and partners**

For ILF, optimum project execution to ensure customer satisfaction is top priority. After many successful projects, ILF has long-standing clients who continuously call upon its engineering services for further projects. Among our clients are both private organisations and government administrations as well as corporate bodies and international financial institutions.

Furthermore, ILF participates in turn-key projects and Private-Public-Partnership models.
Consultancy

ILF supports its customers in developing new project ideas and in finding solutions to individual tasks. In order to check the viability of a project concept, ILF experts conduct technical and economic feasibility studies as well as environmental impact assessment studies. For selected projects, ILF takes on the role of project developer.

Design and planning

ILF’s design and planning know-how is based on more than 40 years of experience and enables the firm to employ its capabilities in all project phases, from conceptual and permit application design, through detailed design and construction design. As part of these planning and design services, ILF also provides further services such as construction and operation permit negotiation, etc.

Procurement

Depending on our customers’ needs, we prepare tender documentation, support the customers in the evaluation of bids and draw up the contracts for project execution.

Project management

If desired by the client, ILF also performs project management and control tasks and assumes full responsibility for the project we have been entrusted with.

Construction supervision

As construction supervisors on site we safeguard the interests of our clients throughout the project execution period and provide support to the clients to ensure successful completion of the project.

Start-up

ILF elaborates operation and maintenance manuals, trains the staff and assists them during the commissioning and start-up phase.

Services that speak for themselves

Consultancy

Design and planning

Procurement

Project management

Construction supervision

Start-up

SPECIAL SERVICES

Geology and hydrogeology
Geotechnical engineering and soil mechanics
Urban and environmental planning
Design of load-bearing structures
Information management and GIS
Automation and SCADA
Telecommunications
Safety and risk management
Financial analysis and institutional strengthening
Project development

PROJECT MANAGEMENT

CONSULTANCY

Master plan
Feasibility study
Economic feasibility study

DESIGN AND PLANNING

Preliminary planning
Conceptual design
Permit application design
Construction design

PROCUREMENT

Tendering procedure
Award of contract
Material procurement

CONSTRUCTION SUPERVISION

Quality surveying
As-built documentation
Construction cost tracking and invoice approval process
Acceptance

START-UP

Personal training
Operation manual
Maintenance manual
ILF offers its clients innovative engineering and consulting services as well as interdisciplinary project planning in the following fields:
Oil & gas
Selected references

Upstream facilities

- Concept design for the modernisation of the Samotlor Oilfield (500 mbod oil production with 95% water cut, 8,300 production wells, 2,700 water injection wells, 50 production facilities and 5,000 km of pipelines), Russia
- Oilfield Development in the Middle East - PMC (135 mbod oil and 140 mmscfd sour gas production, 47 production wells, central processing facility (CPF), 2 x 18” oil and 1 x 18” sour gas export pipeline), Middle East
- Komsomolskoe Oilfield Development - PMC (12 mbod, oil production, produced water treatment, gas reinjection, water injection, 80 km, 6” export pipeline with 16-km long crossing of sea inlet), Kazakhstan
- Usari Offshore Water Injection Platform Project - Basic Engineering (Water injection and produced water treatment in order to increase production capacities in almost exploited oil fields), Nigeria

Pipeline systems

- Baku–Tbilisi–Ceyhan (BTC) Crude Oil Pipeline System, Turkish Section (1,076 km, 42”, 50 Mt/a, 7 x 150,000 m³ tank farm and 2 x 300,000 DWT jetty - loading platform), Turkey
- Trans-Asia Gas Pipeline (TAGP), Uzbekistan-China Gas Pipeline (twin 42”, 525 km, 30 Bcma), Kazakhstan-China Gas Pipeline (twin 42”, 1,300 km, 40 Bcma), Turkmenistan, Uzbekistan, Kazakhstan, China
- Trans-Adriatic Pipeline (TAP), Gas transmission pipeline from Thessaloniki/Greece via Albania and through the Adriatic Sea to Brindisi/Italy (onshore 290 km, 48”, offshore 130 km, 36”, 3 compressor stations, final stage 20 BCM/a)
- ADCOP - Abu Dhabi Crude Oil Pipeline Project (403 km, 48”, 90 bar, 1.5 MMBPD, 2 pumping stations, 1 terminal, 8 x 160,000 m³ tank farm, 3 SPMs, extremely mountainous terrain), United Arab Emirates
- Nabucco Gas Pipeline - Turkey to Austria, Feeder line from Georgia to Turkey (1,100 km, 48” and 56” high pressure steel pipeline, 4 compressor stations)
Oil & gas  
Selected references

### Underground storage facilities
- EPE-Eneco Natural Gas Salt Cavern Storage (injection: 200,000 Nm³/h, withdrawal: 400,000 Nm³/h, installed compressor capacity: 14 MW), Germany
- Natural Gas Storage Facility in Puchkirchen/Haag (extension of existing facilities and connection to Haag gas storage facility, increase of existing capacity / working gas volume from approx. 850 million Nm³ to 1 billion Nm³ after connection of the new storage facility in Haag), Austria
- Crystal Gas Storage Facility at Etzel (injection: 200,000 Nm³/h, withdrawal: 600,000 Nm³/h, compressors with variable speed drive), Germany

### Tank farms and terminals
- 6 storage depots for the supply of the Petrom-OMV petrol station and airport network with diesel, gasoline and JetA-1, including railcar and truck loading and unloading facilities (29 tanks: 2,000 – 10,000 m³), Romania
- Revamp of tanker loading facilities at Leixões, Porto refinery (multi-product facility for 46 individual products ranging from petrochemicals to white, black and LPG products, 3 berths for tankers from 5,000 dwt to 115,000 dwt with associated systems), Portugal
- Abu Dhabi crude oil pipeline, 380 km, 48”, 2 pumping stations (export tank farm and terminal with 8 x 180,000 m³ tanks and 3 single point moorings (SPM) facilities, 3 x 6 km offshore loading lines), United Arab Emirates

### Refineries and petrochemical plants
- SNOx Plant at Schwechat Refinery, Removal of SO₂ (> 2,400 t/a), NOₓ (> 1,400 t/a) and particles from flue gas (820,000 Nm³/h) from the Schwechat refinery power plant (fired with high-sulphur fuel), Austria
- Fergana Refinery, Due Diligence, Technical and commercial due diligence study, Uzbekistan
- PP5 – Borstar Plant 200,000 t/a, Schwechat, First Borstar PP plant worldwide, project management, detailed engineering, procurement, start-up, Austria
- Revamp of the existing polypropylene plant 6 in Burghausen, conceptual design / approved conceptual design, cost estimates, tender evaluation and contract award recommendation (approx. 60 kt/a), Germany
Energy & climate protection
Selected references

Thermal power plants

- Ras Laffan C IWPP, gas-fired combined power generation and seawater desalination plant (2,730 MWel), Qatar
- Shuqaq IPP, heavy oil-fired steam power plant (850 MWel), Saudi Arabia
- Czestochowa CHP, coal- and biomass-fired steam power plant (64 MWel, 120 MWth district heating), Poland
- Weitendorf IPP, waste heat recovery from a gas compressor station (18 MWel, 10 MWth district heating), Austria
- Sabiya & Azour Power Plant, gas turbines in open cycle configuration (2,500 and 800 MWel, 20x GE Frame 9E), Kuwait
- Rabigh IPP, heavy oil-fired steam power plant (1,200 MWel), Saudi Arabia
- Al Qatrania IPP, gas-fired combined cycle power plant (280 - 400 MWel), Qatar

Renewable energy

- Biomass Co-Generation Plant, Hall in Tirol (1 MWel, 27 MWth), Austria
- Integrated Solar Combined Cycle Power Plant, El Borma (40 Mwel, GuD and CSP), Tunisia
- Photovoltaic Power Plant Mihalich (76 MWp, 110 kV grid connection), Bulgaria
- Photovoltaic Power Plant (12 MWp, 20 kV grid connection), Bulgaria

Climate protection

- Heat recovery power plant (compressor station) (10 MWth, 18 MWel), Austria
- Reduction of greenhouse emissions and energy efficiency increase by converting a coal-fired thermal power plant to a gas-fired one (12.1 MWth, 8.8 MWel, combined heat and power generation with natural gas), Poland
- CO₂ capture and storage (DNV standard for CO₂ pipelines), Norway

Sea water desalination plants

- Shoaiba 3 IWPP (194 MIGD MSF desalination plant), Saudi Arabia
- Marafiq Jubail IWPP (176 MIGD MED desalination plant), Saudi Arabia
- Shuqaiq 2 IWPP (47 MIGD RO desalination plant), Saudi Arabia
- Ras Laffan C IWPP (63 MIGD MSF desalination plant), Qatar
- Magtaa IWP (110 MIGD RO desalination plant), Algeria
- Fujairah IWP (35 MIGD RO desalination plant), UAE
- Chennai IWP (22 MIGD RO desalination plant), India
- Qingdao IWP (22 MIGD RO desalination plant), China
- Tobruk (9 MIGD RO desalination plant), Libya

Electric transmission and distribution systems

- NNPC/MPN JV Power Project (500 MW grid connection: overhead line from Qua Iboe Terminal to Ikot Abasi - 2 x Bison ACSR - and substations), Nigeria
- Offshore Pipe Laying Technology for Gas-Insulated HV Transmission Lines (wind farm grid connection: 245 kV - 550 kV, 2-8 GW), North Sea, Germany
- CPC Expansion, two overhead power lines 220 kV, 221 km for the supply of compressor stations, new construction and extension of the respective transformer stations 220/110/10 kV, Kazakhstan
Water supply

- Ghadames - Zawarah - Az Zawiya Water Transmission System (420 km, DN 1,600, 180 km, DN 250 - 800, 250,000 m³/d, 4 pumping stations), Libya
- Ras Al Khair - Riyadh Water Transmission System (374 km, 2 x 72", 92 km, 1 x 72" / 68" / 64" and 48", 947,000 m³/d, 3 pumping stations), Saudi Arabia
- Shuqaiq Water Transmission System, Phase 2 (912 km, 10" - 64", 503,500 m³/d, 8 pumping stations, 50 reservoirs), Saudi Arabia
- Fujairah Water Transmission System, Phase 2 (180 km, 2 x 64", 130 km, 1 x 64", 1,045,000 m³/d, 1 pumping station), United Arab Emirates
- Urban Water Supply and Sanitation Kosovo, (600,000 PE, 190,000 m³/d), Kosovo
- Ahwaz No. 2 Water Treatment Plant (360,000 m³/d), Iran

Waste treatment and disposal

- Voronezh Waste Project (1.3 million m³; population: 850,000), Russia
- Kalisz Municipal Waste Treatment Plant (94,000 Mg/year), Poland
- Grasiboden 2 Landfill (1.2 million m³), Austria
- Roppen 2 Domestic Waste Landfill (800,000 m³), Austria
- Muck disposal sites for the new Nuremberg - Ingolstadt railway line (6.4 million m³), Germany
- Muck disposal sites for the new Wendlingen - Ulm railway line (3 million m³), Germany

Hydropower, dam and river engineering

- Atdorf Pumped Storage Plant (1,400 MW), Germany
- Niederwartha Pumped Storage Plant (120 MW), Germany
- Palas Valley and Spat Gah Hydropower Complex (2,300 MW - 6 HPPs), Pakistan
- Linth-Limmern Pumped Storage Plant (1,000 MW), Switzerland
- Gemeinschaftskraftwerk Inn Hydroelectric Project (88 MW), Austria
- Motyginskaya Hydroelectric Power Plant (1,100 MW), Russia
- Cheurfas II Dam (concrete gravity dam, height 82 m), Algeria

Wastewater treatment and disposal

- Warsaw - Czajka Wastewater Treatment Plant, BOT Project (2,050,000 PE), Poland
- Abu Dhabi Sewage Treatment BOOT Project (1,265,000 PE), United Arab Emirates
- Sulaiabiya Wastewater Treatment and Reclamation Plant (2,500,000 PE), Kuwait
- Teheran Southern Wastewater Treatment Plant and Sewerage Master Plan (WWTP: 2,100,000 PE, sewerage master plan for 11 million inhabitants), Iran
- Katowice / Lodz Wastewater Treatment Plants (200,000 PE / 1,000,000 PE), Poland
- Sewerage System and Water Supply System for the City of Korça (85,000 PE), Albania
Transport & structures

Selected references

Airports

• Berlin Brandenburg International Airport (BBI), Runways, taxiways and aprons, airport lighting system, airport technical equipment, drainage system, Germany
• Wroclaw Airport, expansion of airside facilities, Poland
• Queen Alia Airport, Amman, BOT concession project, technical advisor services, rehabilitation programme, operational concept, Jordan
• Ukraine Airport Development Project 2020, Market potential, traffic forecasts, technical concepts, business plans for 30 international and national airports, Ukraine
• Kuwait Airport, Design & Build – Bid phase, expansion of airside facilities encompassing two runway systems and landside development, technical consultancy, update of concept design

Roads

• SS12 Branzoll – Bozen Bypass Road (9 km), Italy
• A26 Linz Motorway (8 km), Austria
• 8 Regional Road Projects in Macedonia, Preparation of Technical Documentation, (approx. 200 km), Macedonia
• Warsaw Southern Bypass (2.6 km), Poland
• Highway No. 1 Jammu – Srinagar (286 km), India
• Toll system for heavy goods vehicles, short-distance radio system, Austria

Railway systems

• New Havelia – Khunjrab Railway Line (750 km), Pakistan/China
• Suburban Train Guadalajara, Mexico
• Tbilisi Railway Bypass, Georgia
• Nordkettenbahn funicular and cable car in Innsbruck, Austria

Tunnels and caverns

• Niagara Water Diversion Tunnel (10 km, TBM), Canada
• Maliakos Kleidi Road Tunnels (11 km), Greece
• Pfänder Road Tunnel (6 km, TBM), Austria
• Gotthard Base Tunnel (57 km), safety-oriented investigation (SIOP), Switzerland
• Tunnels of New Ebensfeld – Erfurt Railway Line (38 km), Germany
• Warsaw Metro Line (6.5 km, TBM), Poland

Buildings and structures

• TownTown City Development Project, Austria
• New Hot Rolling Mill, Plansee SE, Austria
• Tschabrun Logistics Centre in Rankweil, Austria
• Krakow Underground Car Park, Poland
• Industrial buildings and civil engineering structures for the oil and gas industry
• Various wastewater treatment buildings and structures

Alpine engineering

• Roza Khutor Alpine Ski Resort near Sochi (project area: approx. 1,820 ha, cableway installations, ski slopes, catering facilities and snowmaking system as well as associated infrastructure), Russia
• Tourism Complex Niseko Village, Hokkaido (project area: approx. 470 ha, cableway installations, ski slopes, catering facilities as well as associated infrastructure), Japan
• Zell am See Snowmaking System (water capacity 1,660 m³/h, installed electric power 6.2 MW, storage volume 2 x 56,000 m³ and 176,000 m³), Austria